

Leading financial services company

Accurately assessing capital requirements with IBM Algorithmics and IBM Platform Computing

Overview

The need

To more accurately assess capital requirements, a leading financial services company required a high-performance risk-management solution with support for complex simulations on demand.

The solution

The company chose IBM® Algorithmics® risk analytics software, IBM Platform™ Symphony high-performance grid management software, and the IBM General Parallel File System (GPFS™).

The benefit

The robust, flexible risk-management solution supports complex models, simulations and reporting to help the company achieve regulatory compliance and superior business performance.

A leading financial services company offers life insurance, pensions and annuities to customers across Europe. Effective risk and capital management is key to the company's success. It must have sufficient capital for revenue-generating activities while maintaining a reserve to avoid insolvency.

The company needed to enhance risk analytics, including the process of calculating solvency capital requirements. The firm uses the internal model approach and relies on Monte Carlo simulations to test those models. Simulations can involve more than a hundred time steps, tens of thousands of scenarios, hundreds of risk drivers and numerous statistical distributions. Running these compute- and data-intensive simulations required a robust yet flexible environment.

The environment also must support numerous analysts, in multiple geographic locations, who might run simulations simultaneously. They need to access compute resources and large volumes of data at any given time. This financial services company must provide analysts with an end-to-end solution that includes powerful risk management software, high-performance computing resources and a scalable file-management system.

The IBM solution gives analysts the power to create and test complex models under a wide variety of scenarios and rapidly obtain results anytime, anywhere.



Building a robust foundation for simulation

The company chose IBM for its solution. IBM Algorithmics software is one of the industry's leading market and credit risk management software solutions. To accelerate and scale the simulations run with IBM Algorithmics software, the company uses IBM Platform Symphony high-performance grid management software. Platform Symphony consolidates thousands of distributed compute nodes into a common, shared environment, and automatically optimizes the distribution of IBM Algorithmics calculations across these nodes. Organizations using Platform Symphony have completed up to four times more Monte Carlo simulations in the same amount of time without needing to add hardware.

The company also uses IBM GPFS, a high-performance, parallel file system, to store and manage all data related to scenarios, models, reports and more. The parallel file system can provide improvements of up to 10 times for raw file system I/O and up to two times in a scenario-modeling capacity. With GPFS, the company's analysts can now run multiple Monte Carlo simulations concurrently without experiencing data bottlenecks or time-to-completion delays.

Delivering flexible, on-demand analysis

With IBM Algorithmics, the company's analysts have a powerful, flexible system to create or change models, and then rapidly run simulations that test them. With Platform Symphony and GPFS, the company can now fully leverage IBM Algorithmics capabilities without worrying about performance or scalability. The end result is the ability to run additional simulations more frequently to better manage risk in a fast-changing marketplace.

Solution components

- IBM® Algorithmics®
- IBM Platform™ Symphony
- IBM General Parallel File System (GPFS™)

For more information

To learn more about IBM Platform Computing, please contact your IBM representative or IBM Business Partner, or visit:

ibm.com/systems/technicalcomputing/platformcomputing



© Copyright IBM Corporation 2014

IBM Corporation
Systems and Technology Group
Route 100
Somers, NY 10589

Produced in the United States of America
March 2014

IBM, the IBM logo, ibm.com, Algorithmics, GPFS, and Platform are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml

This document is current as of the initial date of publication and may be changed by IBM at any time.

The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

The client is responsible for ensuring compliance with laws and regulations applicable to it. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.



Please Recycle